IPG Presents New Technologies, Products and Solutions for E-mobility Manufacturing, Materials Processing and Specialized Applications at Photonics West 2024

MARLBOROUGH, Mass., Jan. 29, 2024 (GLOBE NEWSWIRE) -- **IPG Photonics Corporation** (NASDAQ: IPGP) will highlight new and innovative fiber laser solutions at Photonics West January 30 – February 01, 2024 in San Francisco. The 2,000 square foot booth displays include a wide range of laser sources, integrated systems, and industry specific solutions along with numerous showcases of application samples.

High-Efficiency Lasers and Heat Treatment Solutions Enable Manufacturers to Boost Productivity while Meeting Sustainability Targets

Designed to replace less efficient infrared bulb and convection drying furnaces, IPG's long-life, stable and reliable new high-power laser diode sources deliver drastically higher energy efficiencies of up to 55% reducing operating costs and the cost of ownership. Manufacturers benefit from high-efficiency heating solutions which provide dramatically faster heating and drying processes with minimal waste heat.

For high-power materials processing, new ECO series high-efficiency laser sources, provide unmatched high-power reliability with over 50% energy efficiency. These laser sources help manufacturers meet their sustainability targets to reduce energy consumption and CO2 emissions without sacrificing quality or throughput.

Laser Cleaning & Coating Removal Provides an Eco-friendly Alternative to Abrasives and Chemicals

IPG lasers and laser systems provide non-contact, non-chemical methods for cleaning, coating removal and surface roughness modification for manufacturing, refurbishment and repair applications. Manufacturers across industries who utilize lasers for cleaning processes quickly realize significantly lower costs and faster cleaning speeds not available from any other technology.

Innovative Fiber Lasers Boost Productivity in Microprocessing

IPG industrial nanosecond and ultrafast lasers are robust, compact, low cost, and easy to integrate into micromachining workstations. A variety of wavelength options from IR to Deep UV makes them well-suited for cutting, drilling, ablation, micro-welding, and structuring for a wide range of materials.

IPG's novel Deep UV lasers enable manufacturers in the electronics, display, semiconductor and medical industries to seek ever-greater precision for their tools and processes, while maintaining established industrial standards for reliability and uptime.

A Diverse Portfolio of Specialized Lasers for Advanced and Scientific Applications

IPG provides a broad spectrum of lasers and solutions to researchers and engineers at the frontline of innovation. Specialized application lasers are available as tunable and fixed wavelengths from UV to Mid-IR, with ultra-narrow to ultra-broad spectrum linewidths.

Record-setting ultrafast optical frequency combs find uses in metrology and sensing, ultrafast fiber lasers and pulse-shaping technologies address materials research and biomedical fields, linearly polarized single-frequency lasers and amplifiers are demanded by quantum computing community, high brightness kilowatt-class lasers are integrated into advanced power beaming and energy transmission applications.

Advancing E-Mobility Manufacturing with Innovative Laser Technologies

IPG introduces new adjustable-mode-beam (AMB) laser sources which enable high-speed, high-precision, spatter-free welding for EV applications. They are available as either single-mode (with the highest single-mode core power and beam quality in the world) or multi-mode configurations with dynamic and independent control of the core and ring beams. New air-cooled AMB laser sources with quasi-continuous wave (QCW) capability provide pulses of 10X peak power for processing sensitive materials with low heat input at low operating costs.

Helping Manufacturers Reduce Reliance on Destructive Testing of Parts and Simplifying Their Laser Component Integration

Industrially designed, compact and lightweight remote welding heads boast the highest laser power handling in the industry providing ultra-stable welding processes across the full power range. When combined with LDD real-time weld measurement, these welding solutions provide unmatched quality assurance with pre-, post- and in-process weld analysis on every weld of every part enabling effective rework and ensuring only parts within specifications receive further investment in subsequent assembly steps.

IPG has further simplified integration and programming of laser sources, beam delivery, computers, weld measurement and other key controls by directly connecting to wider manufacturing execution systems (MES). IPG software provides powerful features in a simple and intuitive user interface for remote processing applications including cutting, welding, cleaning and marking.

About IPG Photonics Corporation

IPG Photonics Corporation is the leader in high-power fiber lasers and amplifiers used primarily in materials processing and other diverse applications. The Company's mission is to develop innovative laser solutions making the world a better place. IPG accomplishes this mission by delivering superior performance, reliability and usability at a lower total cost of ownership compared with other types of lasers and non-laser tools, allowing end users to increase productivity and decrease costs. IPG is headquartered in Marlborough, Massachusetts and has more than 30 facilities worldwide. For more information, visit **www.IPGPhotonics.com**.

Visit the IPG booth in Hall A at the Moscone Center or **online** to learn more about these and other new fiber laser technologies and solutions.

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